

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. A power supply system for a machine having a plurality of components, comprising:
a power source;
a set of two or more voltage converters connected in series or in parallel and coupled to the power source via a common bus, the set of two or more voltage converters having at least two outputs; and
[[an]] a first electrical supply line for supplying a first required voltage to a first set of components and a second electrical supply line for supplying a second required voltage to a second set of components, the first and the second electrical supply line being coupled to an output the at least two outputs of the set of voltage converters; for supplying a required voltage to the components of the machine connected to the electrical supply line
a switching module associated with each voltage converter for interchangeably configuring each voltage converter with at least another voltage converter in series or in parallel, thereby configuring the required voltages to the first and second electrical supply lines.
2. (Original) A system as claimed in claim 1, including a power factor correction system coupled between the power source and the voltage converters.
3. (Original) A system as claimed in claim 2, wherein the power factor correction system comprises a plurality of power factor correction devices connected in parallel.
4. (Original) A system as claimed in claim 3, wherein the power factor correction device includes an AC/DC rectifier.
5. (Original) A system as claimed in claim 1, wherein the voltage converters comprise DC/DC converters.

6. (Original) A system as claimed in claim 1, wherein the voltage of the common bus is within the range of 300 - 400V.

7-8: (Canceled).

9. (Original) A system as claimed in claim 1, including an additional voltage converter connected in parallel to the voltage converters for providing an output current that is higher than a current required by the components connected to the electrical supply line.

10. (Canceled).

11. (Original) A system as claimed in claim 1, including a separate set of voltage converters coupled to the power source for supplying one or more logic voltages to the machine.

12. (Original) A system as claimed in claim 11, wherein the separate set of voltage converters are connected in parallel.

13. (Original) A system as claimed in claim 1, wherein the voltage converters comprise AC/DC converters with isolators.

14. (Original) A system as claimed in claim 1, including a line filter coupled between the power source and voltage converter for reducing noise from the system.

15. (Original) A system as claimed in claim 1, wherein the set of voltage converters is configured to detachably receive additional voltage converters for coupling to the power source and electrical supply line.

16. (Original) A system as claimed in claim 1, wherein an output voltage of each voltage converter is greater than 48V.

17. (Original) A system as claimed in claim 1, wherein the power consumption of the machine is in the range of 600W to 4,000W.

18. (Original) A system as claimed in claim 1, wherein the machine is one used for semiconductor assembly.

19. (Currently Amended) A method of providing a power supply to a machine having a plurality of components, comprising the steps of:

coupling a set of two or more voltage converters connected in parallel to a power source via a common bus, the set of two or more voltage converters having at least two outputs;

coupling ~~[[an]]~~ a first electrical supply line, for supplying a first required voltage to a first set of components, and a second electrical supply line, for supplying a second required voltage to a second set of components, ~~to an output~~ the at least two outputs of the set of voltage converters; ~~[[and]]~~

connecting the first set of components to the first electrical supply line and connecting the second set of components to the second electrical supply line; and

setting a switching module associated with each voltage converter so as to connect each said voltage converter with at least another voltage converter in series or in parallel, thereby configuring the required voltages to the first and second electrical supply lines.

20. (Original) A method as claimed in claim 19, including the step of coupling a power factor correction system between the power source and the voltage converters.

21. (Original) A method as claimed in claim 20, wherein the power factor correction system comprises a plurality of power factor correction devices connected in parallel.

22. (Currently Amended) A method as claimed in claim 20, wherein the power factor correction devices ~~includes~~ include an AC/DC rectifier.

23. A method as claimed in claim 19, wherein the voltage converters comprise DC/DC converters.

24-26: (Canceled).

27. (Original) A method as claimed in claim 19, including coupling a separate set of voltage converters to the power source for supplying one or more logic voltages to the machine.

28. (Original) A method as claimed in claim 27, wherein the voltage converters are connected in parallel.

29. (Original) A method as claimed in claim 19, wherein the voltage converters comprise AC/DC converters with isolators.

30. (Original) A method as claimed in claim 19, wherein the power consumption of the machine is in the range of 600W to 4,000W.

31. (New) A power supply system for a machine having a plurality of components, comprising:

a power source;

a set of two or more voltage converters connected in series or in parallel and coupled to the power source via a common bus, the set of two or more voltage converters having at least two outputs; and

a plurality of electrical supply lines, each electrical supply line of said plurality of electrical supply lines supplying a required voltage to a respective set of components, said respective set of components being included in a plurality of sets of components, said plurality of electrical supply lines being coupled to the at least two outputs of the set of voltage converters;

a switching module associated with each voltage converter for interchangeably configuring each said voltage converter with at least another voltage converter in series or in parallel, thereby configuring the required voltages to said plurality of electrical supply lines.

32. (New) A method of providing a power supply to a machine having a plurality of components, comprising the steps of:

coupling a set of two or more voltage converters connected in parallel to a power source via a common bus, the set of two or more voltage converters having at least two outputs;

coupling a plurality of electrical supply lines, each of said plurality of electrical supply lines supplying a required voltage to a respective set of components, said respective set of components being included in a plurality of sets of components, to the at least two outputs of the set of voltage converters;

connecting each set of components, in said plurality of sets of components, to a respective one of said plurality of electrical supply lines; and

setting a switching module associated with each voltage converter so as to connect each said voltage converter with at least another voltage converter in series or in parallel, thereby configuring the required respective voltages to each of said plurality of electrical supply lines.